

# Science and Man . . . . By Joshua Lederberg

## *The World of the Future*

MAN'S UNIQUE quality is his self-conscious awareness of history. Every man looks back at a cultural tradition that, whether he understands it or not, has molded his personality, his language, his capacity to cope with the external world. He looks ahead to a posterity and around himself to a community of other men on whom his own life inevitably impinges.



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Religion is this consciousness of the species, the insight that man in complete isolation is nothing, that his life can have a meaning only in communication across time and space with his past and future traditions and with his fellows.

If ever man needed a consistent world model, it should be in the present era of unbounded technological power. Problems of personal identification, the sources of the juvenile revolt, are paradoxes of affluence too cogent for our health as a Nation to be dismissed as passing fads. Psychedelia is not unrelated to geopolitical paralysis, our failure to construct a plausible model of the future world.

THE MOST utilitarian aspects of scientific effort are

intertwined with these confusions of purpose. We think of using science to promote health, alleviate hunger, open up communication, support economic development, invigorate education, defend national security. Yet every rational plan we begin to make in any narrow sphere runs into conflicts of short- and long-term goals and between one effort and another.

For over 20 years, American policy has been dominated by the doctrine of containment: the frustration of Communist expansion, first Russian, then Chinese. It can be argued that to tempt a predator into violence by displaying weakness is immoral, besides being foolish and cowardly. But what are our long-range positive aspirations?

What can we hope to achieve after another 20 years, or 50, of pursuing this containment policy? Do we spend a hundredth of the effort in positive planning—not to mention its implementation—that we do in the defense of the status quo?

Is it possible that we lack the courage to diagnose the future? Now the Chinese have demonstrated their H-bomb, but what myopia is revealed or pretended by the note of surprise that this has happened sooner rather than later. We can no longer evade the reality of the emergence of power in the other world.

THE MOTIVE to implement a so-called antiballistic missile defense comes from clinging to a delusion of a unique power that we had no way of using even while we fleetingly had it. Technically, a few months remain during which a concerted Russo-American effort might efface Chinese nuclear power, just as the United States alone might once have waged a preventive war against the rest of the world.

These suggestions are not necessarily more inhumane than the likely events of future history, but they are politically absurd if only because our long-range strategies are contaminated by tactical motives that would arouse fatal suspicions among our momentary allies. Nor is a world dominated by the naked military power of any nation very happy to contemplate even by its own citizens.

The military and diplomatic routes to world secu-

rity aside, we have then to ask what place we will have in a world in which the Western tradition holds a minority place, already in population and soon inevitably in military power and agricultural and industrial output. We can still aspire to world leadership through pre-eminence in science and technology and participation in the humanistic arts. This will be possible, however, only if we maintain the highest possible investment in the education of our citizens.

We must also prove our leadership by providing convincing models of the kind of world that could result from it. At the very least, this would be a world whose economic organization gave every other nation an opportunity to reach not just subsistence but the kind of affluence we know how to achieve. That leadership is our crucial export.